IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CLAIMS

I claim:

1. An artificial island formed in a depth of water having a surface comprising:

a) an outer perimeter fence, said outer perimeter fence being formed by a plurality of piles driven into the bed of a water body in a pattern, and a plurality of wire mesh sheets, attached to said plurality of piles, the combination of piles and wire mesh sheets forming an enclosure;

b) a quantity of riprap material, placed within said enclosure; and

c) a quantity of fill soil, placed on top of said quantity of riprap until said quantity of fill soil extend above the surface of the water.

2. The artificial island of claim 1 further comprising a plurality of plants, planted in said quantity of fill soil.

3. The artificial island of claim 1 further comprising a geotextile fabric layer, installed between said quantity of riprap (where required) and said quantity of fill soil.

4. The artificial island of claim 1 wherein the island has a diameter.

5. The artificial island of claim 4 wherein the diameter of the island should be at least three times the depth of the water.

6. The artificial island of claim 1 wherein the wire mesh is welded stainless steel.

7. The artificial island of claim 1 further comprising a plurality of tieback cables, each of said plurality of tieback cabled having a first end and a second end, and further wherein the first end of one of said plurality of tieback cables being attached to a pile

and the second end of one of said plurality of tieback cables being attached to a second pile.

8. The artificial island of claim 7 wherein the plurality of tieback cables extends across the diameter of the artificial island.

9. The artificial island of claim 1 wherein the piles are selected from the group of: concrete piles, steel piles and wooden piles.

10. The artificial island of claim 9 wherein the plurality of piles are positioned in a pattern of alternating materials of pile.

11. The artificial island of claim 10 wherein the pattern of alternating materials comprises a series having a concrete pile followed by a wooden pile, filed by a concrete pile designed for site specific conditions.

12. An artificial reef formed in a depth of water having a surface comprising:

a) an outer perimeter fence, said outer perimeter fence being formed by a plurality of piles driven into a water body bed in a pattern, and a plurality of wire mesh sheets, attached to said plurality of piles, the combination of piles and wire mesh sheets forming an enclosure having a diameter;

b) a quantity of riprap material, placed within said enclosure, wherein said quantity of riprap remains below the surface of the water; and

c) a plurality of tieback cables, each of said plurality of tieback cabled having a first end and a second end, and further wherein the first end of one of said plurality of

tieback cables being attached to a pile and the second end of one of said plurality of tieback cables being attached to a second pile.

13. The artificial reef of claim 12 wherein the plurality of tieback cables extends across the diameter of the artificial island.

14. A method of constructing an artificial barrier in a depth of water having a surface comprising the steps of:

a) placing a plurality of piles having tops in a geometric pattern in a water body bed;

b) attaching a plurality of wire mesh to said plurality of piles, thereby forming an enclosure;

c) attaching a plurality of tieback cables around the perimeter of the enclosure, by attaching each of said plurality of tie back cables to two adjoining piles until all of said plurality of piles are connected by said plurality of tieback cables;

d) attaching a second plurality of tieback cables, wherein each of said second plurality of tieback cables are attached to oppositely disposed pairs of piles; and

e) filling said enclosure with a quantity of riprap material.

15. The method of claim 14 further comprising the steps of:

a) placing a geotextile fabric over said quantity of riprap; and

b) placing a quantity of fill soil above said riprap until said quantity of quantity of fill soil extends above the surface of said water where site specific conditions require.

16. The method of claim 15 further comprising the step of planting a variety of plants in said quantity of fill soil.

17. The method of claim 14 wherein the piles are selected from the group of: concrete piles, steel piles and wooden piles.

18. The method of claim 17 wherein the plurality of piles are positioned in a pattern of alternating materials of pile.

19. The method of claim 18 wherein the positioning of pattern of alternating materials comprises the steps of:

a) placing a concrete pile in a desired location;

b) placing a wooden pile in an adjacent location;

c) placing a concrete pile in an adjacent location to said wooden pile; and

d) repeating steps b and c until the perimeter is formed.

20. The method of claim 18 wherein the positioning of pattern of alternating materials comprises the steps of:

a) placing a concrete pile in a desired location;

b) placing a steel pile in an adjacent location;

c) placing a concrete pile in an adjacent location to said steel pile; and

d) repeating steps b and c until the perimeter is formed.